

5    **WHAT IS CLAIMED IS:**

1. A locking device for foldable rigid buckling packing housings, comprising a lower housing, an upper housing, a button, an upper housing hinge plate, a lower housing hinge plate, and a locking plate;  
wherein the lower housing and the upper housing are interconnected by hinge plates;  
10 wherein the structure of the hinges between the lower housing and the upper housing is as follows: the upper housing hinge plate is attached on the upper housing and interconnected with the lower housing hinge plate; a movable locking plate is attached on the lower housing to lock the rotatable arms of the upper housing hinge plate; the locking plate is linked with the button on the side wall of the lower housing; and the button has a resetting spring.
- 15 2. The locking device for foldable rigid buckling packing housings as claimed in claim 1, wherein the upper side of the said locking plate sticks at the lower edge of the upper housing hinge plate, which covers the right and left sides of the projection of the hinge point, wherein the distance between the hinge point and the lower edge of the upper housing hinge plate is equals to the distances from the hinge point to the inner edge and/or the upper edge.
- 20 3. The locking device for foldable rigid buckling packing housings as claimed in claim 2, wherein the said lower edge of the upper housing hinge plate is parallel to said upper edge of the upper housing plate, while the inner edge is perpendicular to said lower edge.
- 25 4. The locking device for foldable rigid buckling packing housings as claimed in claim 3,

5 wherein the upper side of the said locking plate has a convex portion at the site of the projection of the hinge point, while the lower edge of upper housing hinge plate has a concave portion matching the convex portion on the upper side of the locking plate; the distance from the hinge point to the concave portion is equal to the distances from the hinge point to the lower edge, the hinge point to the inner edge and the hinge point to the upper  
10 edge.

5. The locking device for foldable rigid buckling packing housings as claimed in claim 1, wherein the sum of distance from hinge point of said locking plate to its upper side and that from the upper side of the locking plate to the lower housing scaleboard equals the distance  
15 from the hinge point to the lower housing scaleboard.

6. The locking device for foldable rigid buckling packing housings as claimed in claims 1, 2, 3 or 4, wherein a heating board is installed between said lower housing and upper housing; electrothermal components are installed between the heating board and the housings; a  
20 control knob is installed on the side walls of the upper housing and the lower housing; and feet are installed on the bottom wall of the lower housing and the top wall of the upper housing.